FIGURE 12A

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GCTGGTACGCCTGCAGGTACCGGTCCGGAATTCCCGGGTCGACCCACGCGTCCGCCCACGCG   -138
TCCGCGGGAGCGCAGTTAGAGCCGATCTCCCGCGCCCCGAGGTTGCTCCTCTCCGAGGTCTC   -76
CCGCGGCCCAAGTTCTCCGCGCCCCGAGGTCTCCGCGCCCCGAGGTCTCCGCGGCCCGAGGT   -14
CTCCGCCCGCACC                                                     -1

ATG CGG CTG GGC AGT CCT GGA CTG CTC TTC CTG CTC TTC AGC AGC        45
M   R   L   G   S   P   G   L   L   F   L   L   F   S   S
                    5                   10                  15

CTT CGA GCT GAT ACT CAG GAG AAG GAA GTC AGA GCG ATG GTA GGC        90
L   R   A  *D  *T  *Q  *E   K  *E   V   R   A  *M   V   G
                   20                  25                  30

AGC GAC GTG GAG CTC AGC TGC GCT TGC CCT GAA GGA AGC CGT TTT       135
S   D   V   E   L   S   C   A   C   P   E   G   S   R   F
                   35                  40                  45

GAT TTA AAT GAT GTT TAC GTA TAT TGG CAA ACC AGT GAG TCG AAA       180
D   L   N   D   V   Y   V   Y   W   Q   T   S   E   S   K
                   50                  55                  60

ACC GTG GTG ACC TAC CAC ATC CCA CAG AAC AGC TCC TTG GAA AAC       225
T   V   V   T   Y   H   I   P   Q   N   S   S   L   E   N
                   65                  70                  75

GTG GAC AGC CGC TAC CGG AAC CGA GCC CTG ATG TCA CCG GCC GGC       270
V   D   S   R   Y   R   N   R   A   L   M   S   P   A   G
                   80                  85                  90

ATG CTG CGG GGC GAC TTC TCC CTG CGC TTG TTC AAC GTC ACC CCC       315
M   L   R   G   D   F   S   L   R   L   F   N   V   T   P
                   95                 100                 105

CAG GAC GAG CAG AAG TTT CAC TGC CTG GTG TTG AGC CAA TCC CTG       360
Q   D   E   Q   K   F   H   C   L   V   L   S   Q   S   L
                  110                 115                 120

GGA TTC CAG GAG GTT TTG AGC GTT GAG GTT ACA CTG CAT GTG GCA       405
G   F   Q   E   V   L   S   V   E   V   T   L   H   V   A
                  125                 130                 135

GCA AAC TTC AGC GTG CCC GTC GTC AGC GCC CCC CAC AGC CCC TCC       450
A   N   F   S   V   P   V   V   S   A   P   H   S   P   S
                  140                 145                 150

CAG GAT GAG CTC ACC TTC ACG TGT ACA TCC ATA AAC GGC TAC CCC       495
Q   D   E   L   T   F   T   C   T   S   I   N   G   Y   P
                  155                 160                 165

AGG CCC AAC GTG TAC TGG ATC AAT AAG ACG GAC AAC AGC CTG CTG       540
R   P   N   V   Y   W   I   N   K   T   D   N   S   L   L
                  170                 175                 180

GAC CAG GCT CTG CAG AAT GAC ACC GTC TTC TTG AAC ATG CGG GGC       585
D   Q   A   L   Q   N   D   T   V   F   L   N   M   R   G
                  185                 190                 195

TTG TAT GAC GTG GTC AGC GTG CTG AGG ATC GCA CGG ACC CCC AGC       630
L   Y   D   V   V   S   V   L   R   I   A   R   T   P   S
                  200                 205                 210

GTG AAC ATT GGC TGC TGC ATA GAG AAC GTG CTT CTG CAG CAG AAC       675
V   N   I   G   C   C   I   E   N   V   L   L   Q   Q   N
                  215                 220                 225
```

FIGURE 12A Continued

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CTG ACT GTC GGC AGC CAG ACA GGA AAT GAC ATC GGA GAG AGA GAC        720
L   T   V   G   S   Q   T   G   N   D   I   G   E   R   D
                230                 235                 240

AAG ATC ACA GAG AAT CCA GTC AGT ACC GGC GAG AAA AAC GCG GCC        765
K   I   T   E   N   P   V   S   T   G   E   K   N   A   A
                245                 250                 255

ACG TGG AGC ATC CTG GCT GTC CTG TGC CTG CTT GTG GTC GTG GCG        810
T   W   S   I   L   A   V   L   C   L   L   V   V   V   A
                260                 265                 270

GTG GCC ATA GGC TGG GTG TGC AGG GAC CGA TGC CTC CAA CAC AGC        855
V   A   I   G   W   V   C   R   D   R   C   L   Q   H   S
                275                 280                 285

TAT GCA GGT GCC TGG GCT GTG AGT CCG GAG ACA GAG CTC ACT GGC        900
Y   A   G   A   W   A   V   S   P   E   T   E   L   T   G
                                                    300

CAC GTT TGA                                                       909
H   V   STOP
    302

CCGGAGCTCACCGCCCAGAGCGTGGACAGGGCTTCCGTGAGACGCCACCGTGAGAGGCCAGG    971
TGGCAGCTTGAGCATGGACTCCCAGACTGCAGGGGAGCACTTGGGGCAGCCCCCAGAAGGAC    1033
CACTGCTGGATCCCAGGGAGAACCTGCTGGCGTTGGCTGTGATCCTGGAATGAGGCCCTTTC    1095
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FIGURE 13A

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AACAATTTCACACAGGAAACAGCTATGACCATGATTACGCCAAGCTCTAATACGA                -111
CTCACTATAGGGAAAGCTGGTACGCCTGCAGGTACCGGTCCGGAATTCCCGGGTC               -56
GACCCACGCGTCCGTGAACACTGAACGCGAGGACTGTTAACTGTTTCTGGCAAAC                -1

ATG AAG TCA GGC CTC TGG TAT TTC TTT CTC TTC TGC TTG CGC ATT             45
M   K   S   G   L   W   Y   F   F   L   F   C   L   R   I
                5                   10                  15

AAA GTT TTA ACA GGA GAA ATC AAT GGT TCT GCC AAT TAT GAG ATG             90
K   V   L   T  *G  *E   I   N   G   S   A   N   Y   E   M
                20                  25                  30

TTT ATA TTT CAC AAC GGA GGT GTA CAA ATT TTA TGC AAA TAT CCT            135
F   I   F   H   N   G   G   V   Q   I   L   C   K   Y   P
                35                  40                  45

GAC ATT GTC CAG CAA TTT AAA ATG CAG TTG CTG AAA GGG GGG CAA            180
D   I   V   Q   Q   F   K   M   Q   L   L   K   G   G   Q
                50                  55                  60

ATA CTC TGC GAT CTC ACT AAG ACA AAA GGA AGT GGA AAC ACA GTG            225
I   L   C   D   L   T   K   T   K   G   S   G   N   T   V
                65                  70                  75

TCC ATT AAG AGT CTG AAA TTC TGC CAT TCT CAG TTA TCC AAC AAC            270
S   I   K   S   L   K   F   C   H   S   Q   L   S   N   N
                80                  85                  90

AGT GTC TCT TTT TTT CTA TAC AAC TTG GAC CAT TCT CAT GCC AAC            315
S   V   S   F   F   L   Y   N   L   D   H   S   H   A   N
                95                  100                 105

TAT TAC TTC TGC AAC CTA TCA ATT TTT GAT CCT CCT CCT TTT AAA            360
Y   Y   F   C   N   L   S   I   F   D   P   P   P   F   K
                110                 115                 120

GTA ACT CTT ACA GGA GGA TAT TTG CAT ATT TAT GAA TCA CAA CTT            405
V   T   L   T   G   G   Y   L   H   I   Y   E   S   Q   L
                125                 130                 135

TGT TGC CAG CTG AAG TTC TGG TTA CCC ATA GGA TGT GCA GCC TTT            450
C   C   Q   L   K   F   W   L   P   I   G   C   A   A   F
                140                 145                 150

GTT GTA GTC TGC ATT TTG GGA TGC ATA CTT ATT TGT TGG CTT ACA            495
V   V   V   C   I   L   G   C   I   L   I   C   W   L   T
                155                 160                 165

AAA AAG AAG TAT TCA TCC AGT GTG CAC GAC CCT AAC GGT GAA TAC            540
K   K   K   Y   S   S   S   V   H   D   P   N   G   E   Y
                170                 175                 180

ATG TTC ATG AGA GCA GTG AAC ACA GCC AAA AAA TCT AGA CTC ACA            585
M   F   M   R   A   V   N   T   A   K   K   S   R   L   T
                185                 190                 195

GAT GTG ACC CTA TAA                                                    600
D   V   T   L   STOP
                199

TATGGAACTCTGGCACCCAGGCATGAAGCACGTTGGCCAGTTTTCCTCAACTTGA                655
AGTGCAAGATTCTCTTATTTCCGGGACCACGGAGAGTCTGACTTAACTACATACA                710
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FIGURE 13A Continued

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TCTTCTGCTGGTGTTTTGTTCAATCTGGAAGAATGACTGTATCAGTCAATGGGGA    765
TTTTAACAGACTGCCTTGGTACTGCCGAGTCCTCTCAAAACAAACACCCTCTTGC    820
AACCAGCTTTGGAGAAAGCCCAGCTCCTGTGTGCTCACTGGGAGTGGAATCCCTG    875
TCTCCACATCTGCTCCTAGCAGTGCATCAGCCAGTAAAACAAACACATTTACAAG    930
AAAAATGTTTTAAAGATGCCAGGGGTACTGAATCTGCAAAGCAAATGAGCAGCCA    985
AGGACCAGCATCTGTCCGCATTTCACTATCATACTACCTCTTCTTTCTGTAGGGA   1040
TGAGAATTCCTCTTTTAATCAGTCAAGGGAGATGCTTCAAAGCTGGAGCTATTTT   1095
ATTTCTGAGATGTTGATGTGAACTGTACATTAGTACATACTCAGTACTCTCCTTC   1150
AATTGCTGAACCCCAGTTGACCATTTTACCAAGACTTTAGATGCTTTCTTGTGCC   1205
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